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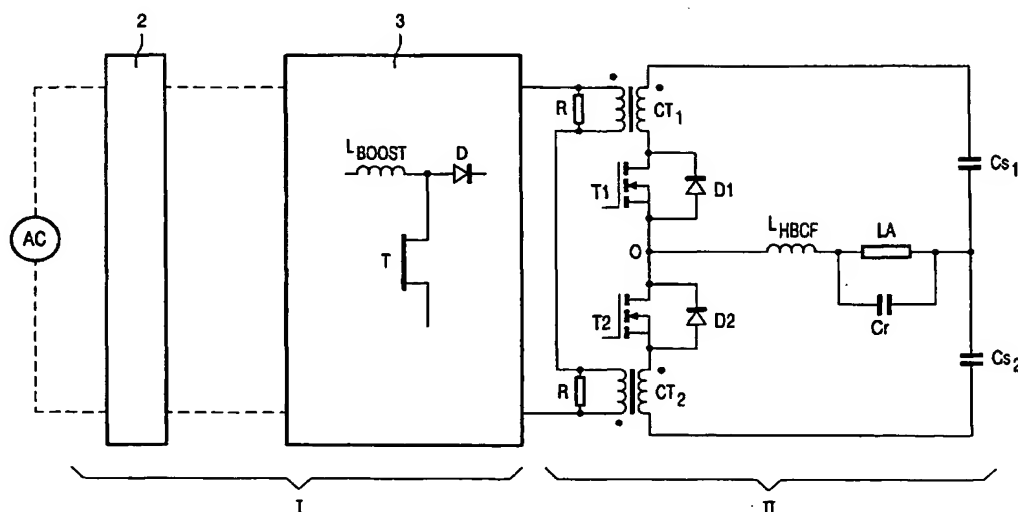
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[Continued on next page]

(54) Title: **DEVICE AND METHOD FOR DETERMINING THE CURRENT FLOWING THROUGH A GAS DISCHARGE LAMP**



(57) Abstract: The present invention relates to a device for operating a gas discharge lamp, comprising a switch-mode power supply circuit for supplying power to the discharge lamp, the switch-mode power supply circuit comprising a half- or full-bridge commutating forward converter with at least a rail line for supplying a rail voltage, a first switching element, a second switching element, and an output node between said switching elements for supplying current to the lamp, and comprising a current-determining circuit for providing a signal representative of the converter current, wherein the current-determining circuit comprises a first current sensing circuit for sensing the current in a first position between the rail and the output node and a second current sensing circuit for sensing the current in a second position between the output node and ground. The invention also relates to a method and an electronic ballast for operating a gas discharge lamp.



MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 914 558 A (FLICKINGER JON) 3 April 1990 (1990-04-03) column 2, line 61 -column 10, line 54; figures 1-6	1,4,6
A	US 6 181 085 B1 (NILSSEN OLE K) 30 January 2001 (2001-01-30)	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4914558	A	03-04-1990	NONE
US 6181085	B1	30-01-2001	NONE